

shipping

MANAGEMENT

JULY 1957

COMBINED WITH

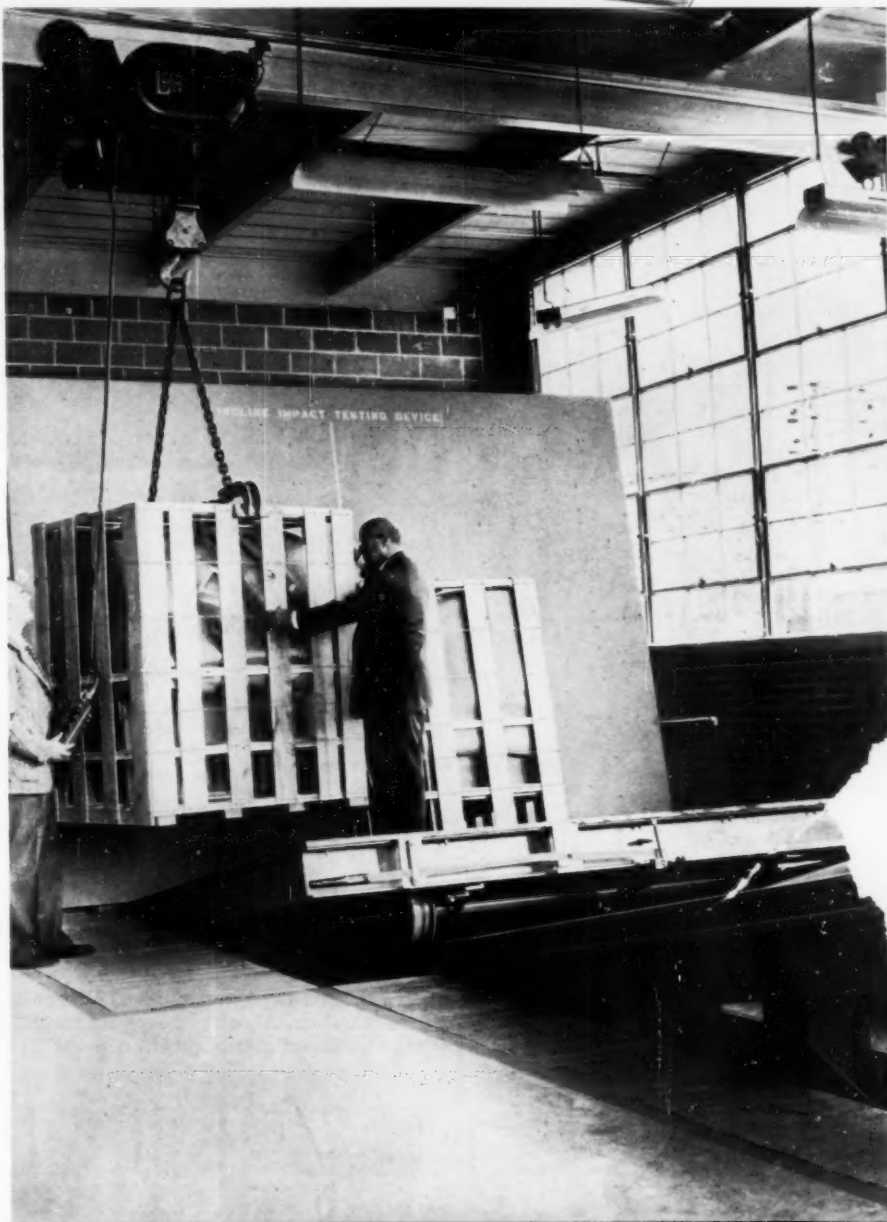


and *The Air Shipper*

THE "HOW-TO" PUBLICATION OF
PACKAGING, TRAFFIC AND SHIPPING

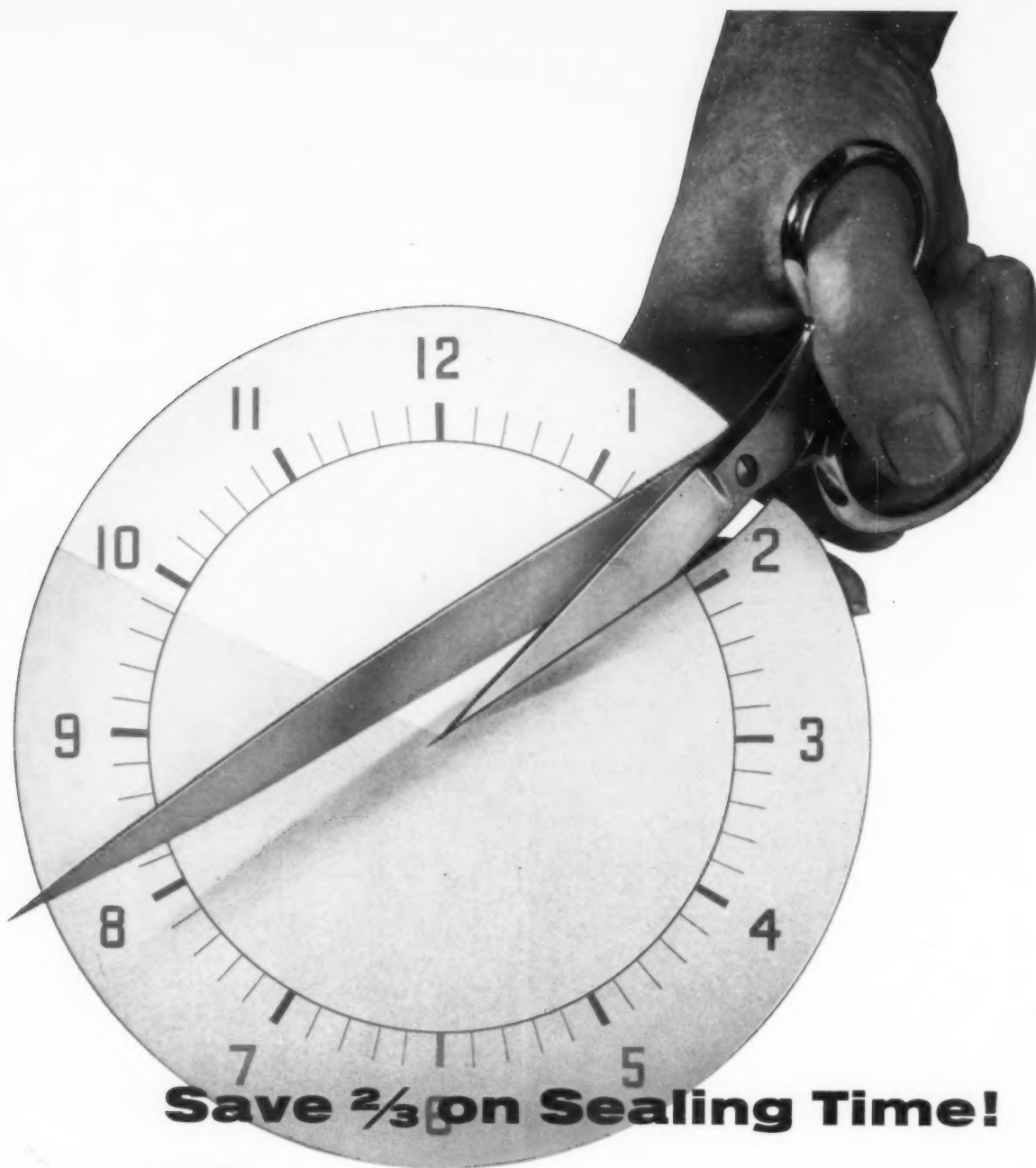
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Electrically-operated traveling hoist moves packed crate to position on top of first crate in order to simulate actual car-loading practices during Incline Impact Test. Scene is Package Research Laboratory, Rockaway, N. J.. For story on latest testing techniques, see Page 6.



READERS' ROUTER

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Save $\frac{2}{3}$ on Sealing Time!



Under Rule 41 railroads have now approved the use of 2 strips of reinforced tape for sealing corrugated boxes. Sisalkraft lends itself to production line sealing of cartons with mechanical equipment.

With 2-way reinforced Sisalkraft Sealing Tape you automatically save two-thirds the time on every carton sealing job. Yes, and you save tape and labor as well as time. Write to us for more facts about Sisalkraft reinforced tape and nearest source of supply. American Sisalkraft Corporation, Attleboro, Massachusetts. Makers of sealing tape stock for the Gummed Paper Industry.

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Reinforced
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PACKING A PUNCH

THE GUMMED TAPE industry is not keeping up with the rest of the paper field in terms of consumption, according to CIA President T. H. Mittendorf, speaking at the Spring Meeting of The Gummed Industries Association, Inc., at The Americana Hotel, Bal Harbour, Florida.

Mr. Mittendorf, himself an important manufacturer, quoted statistics to back up his statement:

"Total paper consumption per capita went up from 343 pounds in 1947 to 435 pounds in 1956, an increase of 26.8%. Total consumption of corrugated liner board went up from 4,558,400 tons in 1947 to 7,181,160 tons in 1956, an increase of 75.5%. During that same time, however, total gummed tape consumption went down from 103,415 tons in 1947 to 94,186 tons in 1956, a decrease of 8.7%. Now had we kept up with the parade, we should have increased in the same proportion that corrugated liner board increased, for that is where our product is used. And the very fact that our total production is off 8.7%, while the corrugated liner board tonnage is up 57.5%, is graphic illustration of the point I am trying to make."

★ ★ ★

SPEAKING OF CARGO and transportation forms (see the report on the Air Cargo Forum, moderated by Shipping Management Consultant Lucien Zacharoff, in this issue) our Australian cousins have been having their own similar matters. Featured at the Convention of The National Packaging Association of Australia, held at Melbourne in April, was a symposium on "Packaging And Its Relationship To Transport." Four speakers representing rail, air, truck and ship held forth.

The subjects were listed as **Road Transport** (by the General Manager, Yellow Express Carriers Ltd., a trucking company), **Rail**, by a representative of Australia's nationalized railways, **Air** by a speaker from Australian National Airways, and **Shipping**.

The integral relationship between transportation, shipping and packaging is gaining recognition the world over. The move to bring transportation problems to the attention of packaging experts, and the converse of having packaging experts work out

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JULY, 1957

Vol. 22—No. 7

shipping MANAGEMENT

COMBINED WITH
PAYLOAD & The Air Shipper

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EASY TO READ stencils and thus added assurance of safe delivery are offered by this hand-operated or electric stencil-cutting machine. Cuts stencils with effortless movement and amazing speed. This company also makes a tape dispenser which operates by the touch of your finger. The machine measures, cuts and moistens tape. For **FREE** brochure, check 1.



BRAND NEW gummed tape simplifies packing operations. Tiny fractures in the tape, formed by micro-diagonal breaking, create thousands of water channels in the glue film and allow greater wetability. Tape also eliminates troublesome tail end curl. For **FREE** sample test roll, check 2.

SURFACE-AIR TRANSPORT program brings shippers fast and low-cost cargo service to or from off-line cities. Involves 5,000 markets that never had direct air cargo service before. One bill for surface carriers and airfreight. Get facts **FREE** by checking 3.

CARTONS CAN'T TEAR or open while in transit if you use this reinforced gummed sealing tape. Seals easily and gives maximum protection to packages. For **FREE** literature, check 4.

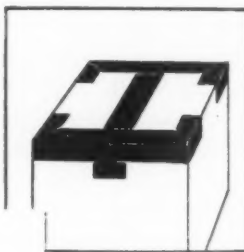
100 STENCILS an hour made with this automatic stencil machine. Has automatic paper carriage and line spacer and shifts for itself. Check 5 for **FREE** demonstration.

SUPERB CUSHIONING protection to fit practically any type of products or assortment. This interior cushioning resists all forms of shock and protects the finish of the product as well. This company also gives complete package engineering design and service by experts. For **FREE** information check No. 6.

"STOP LABELING WITH DOLLAR BILLS." This is the intriguing title of a **FREE** 4-page folder that tells you exactly how to do it . . . how to speed up attaching labels to packages, glass, metal, wood, steel, etc., and how to save by using ungummed labels. This folder can save you thousands of dollars, so be sure to check No. 7.

DUST-TIGHT and moisture-resistant best describe the condition of packages sealed with these tough, long-fibered gummed tapes. They are economical to use and assure added savings by protecting against damage in handling and transit and against pilferage. Advertising messages can be printed on the tape. Check 8 for free sample and brochure.

TRAFFIC COURSE at home compiled by 175 of the country's most prominent traffic executives. This correspondence course is given under the auspices of a leading university to help men now in the shipping and traffic fields get a better understanding of rates, tariffs, regulations, etc., and get ahead. For **FREE** 48-page book, check No. 9.



ONE-HAND TACKING is faster and cheaper. This product has rapid gripping action and take-up jaw for low maintenance. 36 different models and 80 staple sizes for any use. Check 10 for **FREE** BOOKLET.

OVERNIGHT air-surface service offered by combination of leading airline and truck carrier for furniture shipments. Cargo travels door to door as a sealed unit in new type of container. Newest planes used. Airline has 14,000 mile route serving major cities on east and west coasts. For full information, check 11.

GUMMED FILAMENT TAPE . . . faster, better for Parcel Post. Gives your packages a better appearance and affords more protection. This tape can not damage the container. **FREE** SAMPLE roll and data, check 12.

STENCIL ADDRESS your shipments this brand new way: like rolling on a rubber stamp. More than 3 times faster than any other stenciling method or product. Holds enough ink to stencil all day on one inking. **FREE** info. Check 13.

CUT CARTON COST by covering old shipping to the carton color. You can stencil, tape marks. This amazing product dries quickly or mark right over it. **FREE** DATA: check 14.

FREE CATALOG on three-nails per second automatic nailing is offered by manufacturer of nailing machines: Can be adjusted to 24 different box size requirements. Check 15.

CUT SEALING TIME by two-thirds. Use modern way to seal—with two strips instead of six. Made possible by tape's precisely laid 2-way reinforcing. For **FREE** SAMPLES check No. 16.

DON'T LET slow deliveries cost you orders and tie up both production and inventories. This airline, one of the world's finest, flies from major airports in the United States and Canada to principal cities mainly in the British Empire. No cargo problem is too tough for this line to handle. For complete info., check 17.

THREE TYPES of gummed tape tailored to meet all of your sealing requirements. New two-strip reinforced gummed tape included in line. Containers stay closed regardless of how much shock impact they have to take in transit. Check 18 for full details.



MODERNIZE your stenciling and labeling operations through scientific methods geared to your particular order-processing and material-handling procedure. **FREE** 16-page booklet tells you how to cut your shipment addressing time by as much as 50 to 70%. Check 19.

NO MORE CURL, butt roll waste and dispenser snarl when using this kind of gummed tape. Made according to superior standards. Available in 11 colors, ribbed or plain. For **FREE** sample roll, check 20.

ANNUAL REFERENCE MANUAL on shipping, packing, traffic and transportation operation coming off the presses soon. For **FREE** trial examination, check 21.

Here Are New Revamped Rules For The 1957 National Packaging Competition

**Cash Prizes To Be Awarded, Who Qualifies,
How Entries Will Be Scored, How To Enter
Dates: Oct. 28-31, 1957**

ENTRIES IN THE 1957 National Championship Industrial Packaging and Materials Handling Competition will be keyed to the "What's new—how to do it" theme of SIPMHE's National Industrial Packaging and Handling Exposition which will take place October 28-31 in Convention Hall, Atlantic City, N.J.

In announcing the 1957 Competition rules and regulations, chairman N. F. Behme pointed out: "The Competition has been completely revamped from changes in the entry groupings to the final award presentation ceremonies. However, it will still remain essentially a packaging and materials handling competition with the changes in regulations designed to permit broader participation."

The Competition will climax at the SIPMHE Exposition. Entries will be located in the center of the exhibit hall and awards will be made as part of the exposition program.

Seven Award Groups

Designers, engineers, and users of industrial packaging and materials handling systems will compete for awards in seven basic groups: I. corrugated or solid fibre boxes; II. nailed wood boxes or crates; III. wirebound boxes and crates; IV. cleated panel boxes; V. general packaging; VI. export packages; and VII. materials handling.

One of the significant changes in the rules and regulations, Mr. Behme said, will be the subdividing of the materials handling group into heavy handling—including bulk, light handling—

such as packages on the line, and general handling. The handling group will have a separate prize schedule.

The Harold Jackson Trophy will be awarded for the Best of Show-Packaging. Awards for each of the six packaging groups include: first prize—blue ribbon and \$150; second prize—red ribbon and \$100; third prize—white ribbon and \$50. In the Materials Handling Group there will be a first prize award of a blue ribbon and \$150 in each of the materials handling sub-groups. In addition to the cash awards and the ribbons, each winner will receive a specially designed Certificate of Award.

Who Can Enter

Awards will be announced in the Convention Hall in the Competition Exhibit Area at 2:00 p.m. on Wednesday, October 30. This is a change from the award dinner usually scheduled during the Exposition.

According to Competition rules and regulations, entries must be submitted by an individual not connected with the manufacture and sale of packaging and materials handling products, materials or supplies, and must have the full approval of the entrant's management. Companies participating through their employees, must apply through regular employees of their organization. There will be no awards to companies as such. Individuals may submit not more than one entry

(Continued on Page 32)

World's Largest Shipping Load and Container Testers Installed By Lab

- **Incline Impact Tester**
1,000,000 lb. force
- **Vibration Machine**
10,000 lb. capacity
- **Drop Test—Stacking Test**
5 ft. thick concrete pit

SOME OF THE LARGEST container, load and shipment behavior testing devices in the world have been installed in a new wing of the Package Research Laboratory, Rockaway, New Jersey. Packed products weighing up to 10,000 lbs. or multiple loads up to 20,000 lbs. can be tested in the new wing. The apparatus can now predict the behavior of stacked containers or unitized loads in handling, shipping, or storage, where combinations of impact, vibration and compression forces act on them. Package Research does most of its testing for the wirebound box industry, for manufacturers and for users of wirebound boxes, but its facilities can occasionally be made available for testing other containers and loads where these items are too big or too heavy for other laboratories.

Among the new testing devices at Package Research are:

An *incline impact testing device*, said to be the largest of its type in the world. It is



This 20,000-pound capacity scale, built into floor at Package Research Laboratories, enables products to be weighed before testing procedure starts.

electrically driven and built to withstand a one million pound force impact.

The largest capacity *vibration machine* ever built with a capacity of 10,000 lbs. and a table area of 130 square feet.

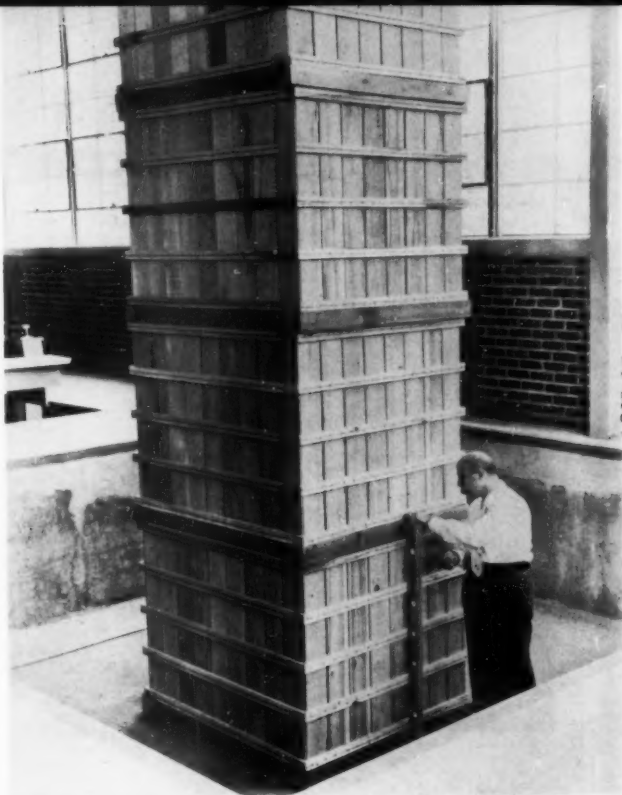
A combination "*drop test—stacking test*" pit, built over a 5 foot thickness of especially reinforced concrete.

Reason for creation of the new wing was the need to handle large, weighty loads using a minimum of manpower. Its receiving dock has an overhead monorail hoist and also a built-in winch to facilitate loading and unloading. Each of the three principal testing devices in the laboratory is served by its own 5 ton capacity electrically operated traveling hoist. The laboratory also is equipped with various dollies, "grabs," jacks and a heavy duty fork lift truck. A 20,000 lb. capacity scale, built into the laboratory floor, makes it easy for a technician to weigh each item received.

By simulating the shock, jars and general punishment experienced by packaged products on their journey from producer to consumer, the laboratory determines if a container protects its product—without sacrificing time, excessive product damage or loss of customer good will, all common to the alternative "trial and error" method. Besides discovering limitations in shipping container design, package research often is able to uncover unknown weaknesses in a fabricated product.

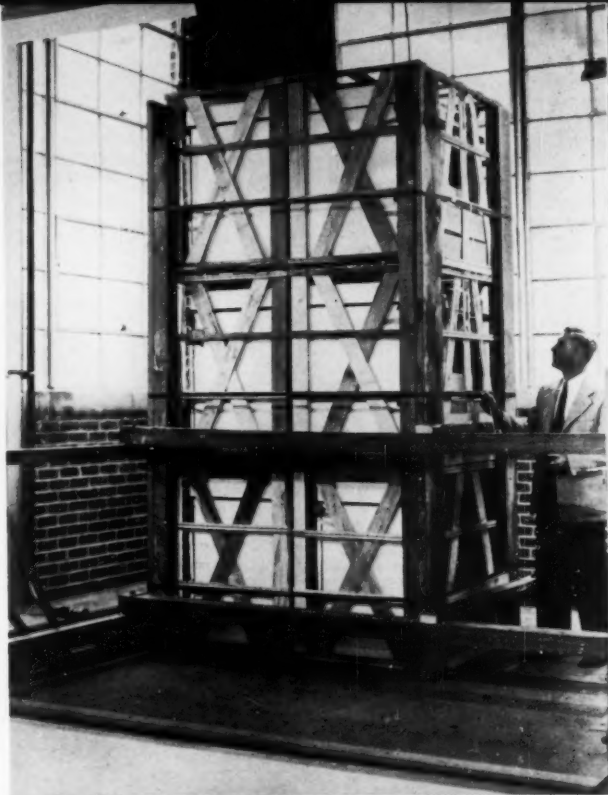
Inherent product weaknesses — such as inadequate welds, bolts without washers, or self tapping screws which come loose—are usually discovered on the vibration machine, where one hour's testing is considered equal to 1,000 miles of normal transportation.

The vibrator in the Laboratory's new addition has an adjustable operation speed of 150 to 300 r.p.m., and is driven by a 30 h.p. motor connected to a push button actuated variable speed drive. An electric tachometer with dial on the machine's control board panel tells the number of r.p.m.'s



Above, left: Packaging engineer measures the amount of deflection by stacking pallet crates four high. Each crate contains one ton of potatoes.

Above, right: Largest vibration testing machine in world subjects kitchen stoves, stacked three high, to National Safe Transit Test. One hour's testing equals 1,000 miles of normal transportation. Machine also tests for product weaknesses such as inadequate welds and loose screws.



at which the machine is operating. The adjustable high fences on this apparatus position and constrain the item being tested, whether it is a single packaged product, or a unit load weighing up to 10,000 lbs. and not exceeding 10 ft. x 13 ft.

Packed containers measuring up to 15 ft. long and weighing as much as 5 tons can be dropped from various heights into the 16 ft. x 16 ft. drop test pit. High stacking tests also are conducted to determine how much overhead weight a container can sustain safely.

The most impressive piece of equipment in the new structure is the massive incline impact tester. The bumper or "backstop" is 13 ft. wide and 10 ft. high, of steel covered timbers backed by six 15" steel I beams, and supported by 15 more steel beams. This structure is anchored to 100 cubic yards of reinforced concrete, making it literally "immovable." A 3,600 lb. six-wheel car, capable of carrying 20,000 lbs., travels along two steel rails inclined at 10 degrees. Packages to be tested on the Incline Impact Tester are loaded on the car's 10 ft. x 10 ft. bed by an overhead hoist. Then the car is hauled a predetermined distance up the incline where a special block automatically releases it, letting it rocket down the

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Despite force of incline impact tester, glass windshields for 1957 automobiles survived without damage after smashing against bumper at bottom of incline.

Air Cargo Symposium: Air Freight Experts



"We're on a tremendous threshold right now. I will not speculate on the amount of growth potential for air freight, but it can go pretty far if the industry conducts an intensive educational campaign to point out to businessmen the savings inherent in air freight."

—T. J. Harris, American Airlines



"Heavy goods such as machinery, vehicles and electrical equipment constitute 43% of the present airlift. Textiles are second with 17% and scientific and professional instruments third with 9%. Other important airborne commodities include inedible animal and vegetable products (7%), paper, wood and rubber products (8%), chemicals and related products (7%)."

—Arthur Rickard, KLM Royal Dutch Airlines

A SEARCHING ANALYSIS of the problems of shipping by air and of its increasing importance in today's commerce and industry was developed in a unique symposium at the June dinner meeting of the Eastern Division, Society of Industrial Packaging and Materials Handling Engineers. Attendance was the largest in the history of SIPMHE's regular meetings in New York, the audience comprising packaging engineers, traffic managers, transportation supervisors, materials handling specialists and representatives of United States and foreign airlines.

Marking the first large-scale get-together of airline and packaging interests, the turnout and keen attentiveness of the audience have caused SIPMHE officials to consider the staging of similar air cargo forums in other parts of the coun-

try. The symposium in New York was arranged by SHIPPING MANAGEMENT Magazine combined with Payload & The Air Shipper. Lucien Zacharoff, editor of Payload and management consultant to SHIPPING MANAGEMENT, acted as moderator of the panel of four top-level experts representing the leading carriers, each discussing a vital aspect of the subject.

Every Aspect Discussed

As the opening speaker, Thomas J. Harris, director of cargo sales, American Airlines, dealt with "where we've come from" and "where we are going". Next, air freight's relationship to packaging was traced by S. E. Russ, director of cargo sales, Trans World Airlines.

The talk by Arthur Rickard, cargo traffic manager, KLM Royal Dutch Airlines, was illustrated with a special exhibit stressing the great diversity of commodities regularly flown. How air freight is changing American distribution habits was the theme of John C. Emery, Jr., vice-president in charge of sales, Emery Air Freight Corporation, who devoted a good deal of attention to the recently released Harvard Report on air-shipping costs and kindred matters.

Among them the speakers revealed a frank and often critical awareness of the pioneering status of air freight, but optimism felt by all was expressed by Mr. Harris:

"We're on a tremendous threshold right now. I will not speculate on the amount of growth potential for air freight, but it can go pretty far if



Far left: Julius J. Pucky, Western Electrical Instrument Co., subsidiary of Daystrom Co., new 1957 President, Eastern Div. SIPMHE.

Left: Lucien Zacharoff, as he moderated the Forum.

Meet With Packaging Engineers



"TWA's stores department has experimented with various types of containers for more than two years and has been able to develop lightweight and relatively inexpensive wooden crates, thus reducing our shipping costs substantially."

—S. E. Russ, Trans World Airlines



"At long last the mystery of finding and proving the economic soundness and place of air freight in America's distribution patterns was at least partially solved or substantiated. Now we have the ammunition to help both you and ourselves bring down the rising costs of distribution."

—J. C. Emery, Jr.,
Emery Air Freight

the industry conducts an intensive educational campaign to point out to businessmen the savings inherent in air freight."

Major Commodities Carried

Eight major types of commodities and their percentages to the total currently carried by air carriers were named by Mr. Rickard. Heavy goods such as machinery, vehicles and electrical equipment constitute 43% of the present airlift.

1957-1958 Officers Installed By Eastern Div. On Night of Meeting

New officers for the Eastern Division of SIPMHE were installed on the night of the meeting, to take over for the year 1957-1958. Officers included: President, Julius J. Puchy, Western Electrical Instrument Co., subsidiary of Daystrom Co.; Exec. Vice Pres., Edwin Dahill, Fourdrinier Kraft Board Inst., Inc.; V-P, Packaging, Jules L. Fallick, Preservation Packaging, Inc.; V-P, Materials Handling, L. R. Burroughs, Ford Motor Co.; V-P, Transportation, Albert T. Prince, Cromwell Paper Co.; V-P, Education, John Sierchio, RCA International Div., Radio Corp. of America; Secretary, Thomas G. Kenyon, J. H. Dunning Corp.; Treasurer, Benjamin T. Brooks, Insurance Co. of N. America; Directors (1958), Allyn C. Beardsell, Container Laboratories, Inc. and John D. Farrington, Jr., Jiffy Mfg. Co.; Directors (1959), Earl R. Stivers, Package Research Laboratory, and Joseph H. Friedman, SHIPPING MANAGEMENT MAGAZINE.

Textiles are second with 17% and scientific and professional instruments third with 9%. Other important airborne commodities include inedible animal and vegetable products (7%), paper, wood and rubber products (8%), chemicals and related products (7%).

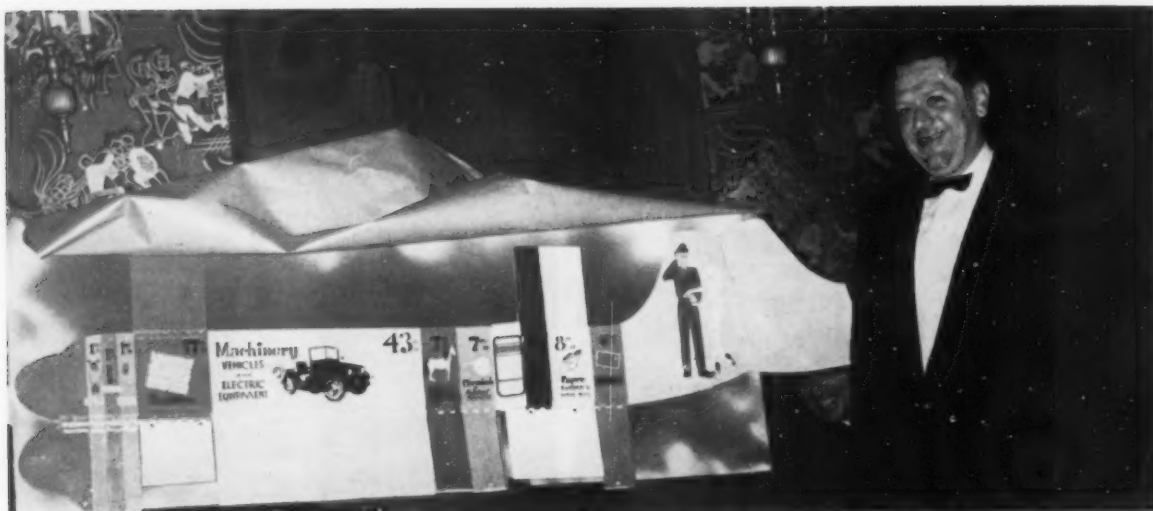
The distribution savings available were emphasized both by Mr. Russ and Mr. Emery. Air freight should be regarded as a "package," the former said, "which includes, in addition to speed, the reliability and availability of service, and in particular the effect on other costs, such as inventory, warehousing, obsolescence, packaging and materials handling."

Mr. Emery pointed out that the Harvard study had at least partially proven "the economic soundness and place of air freight in America's distribution patterns" because of its ability to help



Right: Stanley R. Kermish, publisher, SHIPPING MANAGEMENT.

Far Right: John D. Farrington, Jr., Jiffy Mfg. Co., Program SIPMHE.



The graphic exhibit of commodities now being carried by air freight lines was shown by Arthur Rickard, of KLM Royal Dutch Airlines at the air cargo forum. The figures for various commodities were in some cases quite humorously illustrated.

Segments of the very large crowd (largest for a regular Eastern Division SIPMHE meeting) were snapped informally by photographers. Many a notable in the air transportation, packaging and materials handling fields can be seen among the faces.

"bring down the rising costs of distribution," particularly through savings in warehousing.

Packaging for air freight came in for its share of attention from both speakers and the many packaging specialists who joined in the question period. Mr. Russ told how cardboard containers which TWA had developed had saved some "\$50,000 in out-of-pocket costs alone, over the cost of wooden crates" during the past three years. Some of the cardboard boxes cost less

than 20 cents each, replacing wooden crates that may have cost as much as \$10. Well designed packaging has brought a reduction of more than 200,000 pounds of dunnage a year.

The container developments came about as a result of more than two years of experimentation by TWA. "The project received its original impetus from an attempt to package for shipping

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Very Small Unit Pack →

Switch To Wirebounds Saves Money On Both

SUBSTANTIAL SAVINGS in material and labor costs, shipping weight and warehouse space were racked up recently by two different companies after they switched to wirebound boxes for the packaging of such diverse products as practice bombs for the Navy and home heating units. The concerns involved are the Tredegar Co. of Richmond, Va., and National-U.S. Radiator Co. of Middletown, Pa.

Ray Krise, president of Tredegar, said that over-all savings thus far amount to about \$50,000 a year, accruing at \$20,000 a year. Packing costs have been cut in half and shipping damage drastically reduced.

Under the former packing method, the delicate fins of the 25-pound bombs sometimes were damaged during shipment and handling. In September 1954, the company converted to the use of wirebound boxes after exhaustive laboratory tests showed them to be better able to withstand severe handling and to permit stacking up to over 170 high! "Trial runs" demonstrated further that they would be much easier and faster to pack and unpack. Shipping weight was cut from 63 to 56 pounds, or 11 percent. Since storage space was at a premium, another important economy was the ability to store three times as many unassembled wirebound boxes before use as made-up nailed boxes.

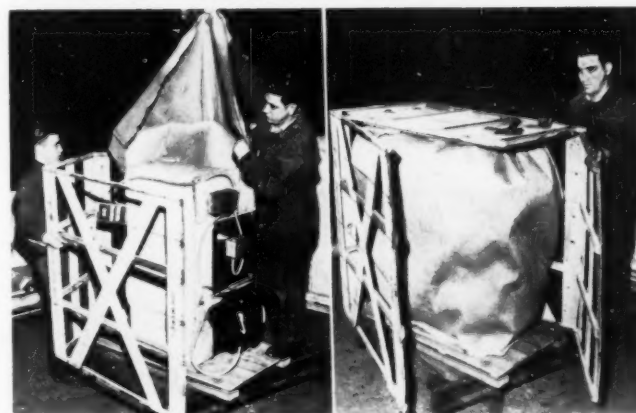
The wirebound box consists only of the one-piece wirebound blank, the two specially engineered ends, and a solid wood separator. No nailing is needed. The ends are held secure between parallel end cleats of the blank and the separator is held by grooves built into the inside of the ends. The box is closed with wire-loop fasteners. The bombs are packed in reverse manner, their noses in opposite directions, and with their hangers resting upon the separator. Intermediate cleats of the wirebound blank act as interior cradle-packing to protect the fins. The bombs are shipped by the carloads to naval air stations and are stacked ceiling-high on pallets in the Tredegar shipping room before shipment.

Home heating units weighing up to 887 pounds



Left: Packer at Tredegar Co. forms sides of one-piece wirebound box for two 25-pound naval practice bombs. Ends are fitted into channels between the parallel and cleats, and wood divider fits into grooves built into inside of ends. Right: Intermediate cleats serve as interior blocking to keep bombs from shifting. Noses of bombs face in opposite directions.

Very Large Unit Pack



Packing operation for home heating unit at National U. S. Radiator Co. takes only 4.87 man minutes. Left: bag of insulating material is placed over unit as protection against dust and moisture. Right: unit is then placed in one-piece wirebound blank that comprises the four sides of crate. Prefabricated tops of crates are then fitted with three permanently secured pieces of blocking.

have been packed in only 4.87 man-minutes at the National-U.S. Radiator factory since it started production in 1956 of its line of four different size units.

Even the largest, with a gross shipping weight of 1000 pounds, is stacked safely four high in the company's warehouse and shipping room, or in dealers' warehouses. Yet the packaged unit is so compact that it can be moved easily, still crated, through an ordinary doorway to the exact site of installation.

Only two different sizes of wirebound crates are used to pack the four different size units.

Final assembly of the heating units, including each crate accommodating either of two units, thanks to an ingenious arrangement of blocking on the wholly prefabricated lids of the crates.

(Continued on Page 30)

Pressure Sensitive Tape Passes Globe Girdling Air And Sea Shipping Test



Above: Packages sealed with pressure sensitive tape are loaded aboard S/S Steel Admiral for start of world - wide trip. Left: Longshoremen in Saigon unload shipment for inspection.

PRACTICALLY DAMAGE-FREE arrival of a varied load of fragile and light goods has just been reported of a round-the-world test shipment by air and sea. The test was conducted by the Pressure Sensitive Tape Council as part of a campaign to determine whether self-adhering tapes can reduce loss and damage in export shipping. Among the products shipped were a TV color picture tube, soap, abrasive discs, drugs and cigarettes.

The five packages, sealed with pressure sensitive tape, were loaded aboard the SS Steel Admiral of the Isthmian Line at New York on March 15th and were inspected and photographed at San Francisco, Manila, Saigon, and Bangkok. They were assigned to Pan American World Airways at Bangkok for air shipment to Karachi, Beirut, London and back to New York with the same inspections and photography being accomplished. The last leg of the journey, from International Airport to the 30th Street Heliport, was completed by one of New York Airway's helicopters. American International Underwriters,

(Continued on Page 33)

Left: Handlers at Karachi load packages into plane for air freight shipment to Beirut, next step of global journey. Cartons are still unscratched and almost in same condition as when shipped from New York. Right: David W. Stewart, II, assistant to president, American

International Underwriters, points out model pallet loaded with cartons to William Boland, pres., Pressure Sensitive Tape Council. Cartons were placed on exhibit at AIU building in New York City.



FLASH-TITE®

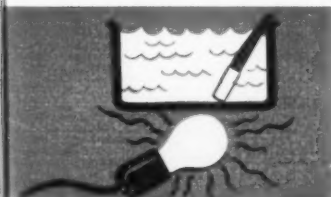
Gummed Tape

Tips



KEEP MOISTENING WATER WARM

For trouble-free taping keep water in your gummed tape dispenser moderately warm. But, even under less ideal shipping room conditions, you can expect a tight, sure bond with Flash-Tite gummed tape. The special formula Flash-Tite glue really *fights* to bite in and hold even at low temperatures. *For best results under all conditions use Flash-Tite gummed tape. Order Flash-Tite from your supplier today!*



Warm water makes any gummed tape work better. Ideal temperature is around 70°.

IMPORTANT! New FREE booklet, "Flash-Tite Gummed Tape Tips," tells you how to get the most out of packaging with gummed tape. Send for it NOW!



 **CROWN ZELLERBACH**

... for more details check #2 on HELP-O-GRAM card.



FLASH-TITE, DEPT. 3-E
343 SANSOME STREET
SAN FRANCISCO, CALIFORNIA

Please send me your free booklet,
"Flash-Tite Gummed Tape Tips."

FIRM NAME _____

TYPE OF INDUSTRY _____

ADDRESS _____

CITY _____ STATE _____

REQUESTED BY _____



"Back Orders" Create Some Delicate Problems. Here's How To Handle Them

FORTUNATELY, OR UN-FORTUNATELY as the case may be, most companies at one time or another run into a "back-order" situation; that is to say, the concerns manufacturing or distributing products find that the demand is greater than the supply and therefore have to ship orders incomplete if there is more than one item on the order or not at all if there is only one item.

In most instances this is a very healthy situation and the period of back-order is normally of short duration inasmuch as production can be increased to correspond to the increase in demand.

Increases Traffic Load

Needless to say the Traffic Department of any concern bears the brunt of the back-order situation inasmuch as it not only increases their workload because of the multiple handling of orders, but it also puts them many times in a position where discretion must be used in the filling of all orders. By the same token the costs incurred by the Traffic Department during a back-order period are normally quite high because of the double handling of orders and the processing of same. Other than the increased cost of handling such a situation there are other technical questions as well as questions of policy which arise when a company finds itself faced with a shortage of material.

The first problem which usually arises is that because of the short supply, a shipment must be made to a dealer in two or more separate consignments.

This obviously increases his transportation costs and the main problem is whether the shipper or the consignee should bear the brunt of this additional charge. As in all of these problems, the solution is a matter of company policy and should be settled as such.

My feeling is that if the back-order results in only one additional shipment, the dealer or consignee should pay the transportation charges. However, if this creates considerable dissatisfaction among the dealers, a two-step process may be used.

- Company Policy Involved
- Charge, If Possible
- Maintain Goodwill

First, if the dealer does not complain about the excessive transportation charge it would be best to follow the policy of "let sleeping dogs lie." However, if the dealer writes in complaining that his material arrived in two separate consignments, it is my feeling that a letter should be sent to him apologizing for the situation but also pointing out that it was felt that the dealer would prefer to have some of his merchandise rather than hold up his entire order until the short items arrived. By so doing it is pointed out that the majority of the merchandise requested was forwarded immediately and only that short item was held back. Therefore, with only a small additional transportation charge the dealer was

allowed to make his normal sales. If any dealer is still adamant about the excessive transportation charge it is felt that rather than stir up a hornet's nest, credit for the amount of transportation involved should be issued to that dealer.

Other concerns handle the problem very subtly by informing the dealer that an item is out of stock and that those items available will be shipped but the out-of-stock items will be cancelled. The dealer is further told that if he still wishes the out-of-stock item he may re-order within a specific period of time when it is felt the material will be available. It should be noted that this technique very cleverly absolves the shipper from any liability insofar as additional transportation charges are concerned inasmuch as he is actually handling two orders when and if the dealer reorders the merchandise. However, opposed to this, particularly if it is a competitive item, the manufacturer subjects himself to the loss of the sale.

Out of Stock Items

Manufacturers go a step further when an item is out of stock and simply refuse to accept the order. There again, if the item is a competitive one, the shipper tends to lose the sale but in addition, it precludes the possibility of determining how many units of any item he should manufacture to fill all current orders.

The best solution to such a situation is to ship all items which are in stock, back-order those which are not, and when the supply becomes available, to

(Continued on Page 29)

NEWS — PROMOTIONS

of companies and associations

CHASE BAG COMPANY announced election of **William N. Brock**, **Leland S. Brown** and **Francis H. Ludington, Jr.**, to board of directors. Mr. Brock has been general sales mgr. of Chase since 1953, VP since 1954.



Above, left: Francis H. Ludington, Jr.
Below: William N. Brock (left) and Leland S. Brown (right).



Mr. Brown is VP, First National City Bank of N. Y. Mr. Ludington is fourth generation of his family to hold company office. He became Ass't VP, Mfg., 1951, and VP, 1954. . . .

Kraft Bag Corporation announced following appointments to sales staff; **R. F. "Bud" Hobbs**, rep. for multi-wall bags, Kraftpacker Open Mouth Bag Filling Machine, Northern Ohio, Michigan, with Chicago headquarters; **R. A. Kurlander**, rep. for N. Y. State, New England with headquarters at N. Y. C.; **Robert E. Smith**, sales engineer, Alabama, Western Tennessee.

ATLANTIC GUMMED PAPER CORPORATION named **P. Jay Harris**, ass't sales mgr., according to **Saul Warsaw**, pres. Harris will assist **S. W. Franklin**, marketing VP. Previously, he was Franklin's assistant at Hudson Pulp & Paper Corp. . . . **Nashua Corporation** appointed **Robert W. Carey** as Converter Sales Div. rep., Illinois, Wisconsin, Minnesota, Missouri. Carey is former All-American end for Michigan State Univ. . . .

Lifschultz Fast Freight appointed **Jack Webber**, **Stearns S. Smiley** terminal managers at New Haven, Conn., Springfield, Mass., respectively. Pre-

viously, Webber headed the Springfield terminal while Smiley was Boston sales mgr.

HONORED: Consolidated Freightways won Department of Defense Reserve award, highest made by federal government to business firms for support of armed forces reserve program. Col. Willard B. Carlock, chief, U. S. Army military district, presented award to **Harold Gray**, VP, Consolidated, general mgr., western region.

Seal-O-Matic Dispenser Corporation appointed **Edwin J. Kaake**, national sales mgr., according to **Samuel Ortner**, pres. Kaake previously was branch field mgr., Remington Rand, Inc. He will direct overall sales policy for Seal-O-Matic and affiliate, Flash

Manufacturing Co. . . . **E. Walter Miller** joined **William W. Fitzhugh, Inc.** as general manufacturing, sales consultant, South Jersey, Philadelphia areas, and as corrugated sales rep., Easton, Pa.

EXPANSION: Brown-Bridge Mills, Inc. constructing new 46,000 sq. ft. building at Troy, Ohio, to provide increased room for storage, shipping.

APPOINTED: **Waldo G. Bretson**, VP, general mgr., Mid-States Gummed Paper Company, it was reported by **Arno L. Zinke**, pres. Mr. Bretson succeeds **Frank W. Humphner**, as general mgr., who was re-elected VP, board member. Bretson previously was in charge of Mid-States' manufacturing
(Continued on Page 23)

NEW PRODUCTS IDEAS SERVICES

Powered Tape Dispenser

Electronically-controlled gummed tape feeding, measuring and moistening is the main feature of the new Tape-O-Matic No. 3 dispenser, it was stated by Better Packages, Inc., the manufacturer.

Through the use of pre-set key selectors, tape lengths are controlled, waste is eliminated and uniform looking cartons are assured, the company said. A constant speed motor which feeds tape at a uniform rate of speed and regulated flow of warm water are other features.

Shippers have a choice of controls for installation on shipping tables or in conveyor lines. Keyboard or selector controls may be installed on the machine, connected to a foot treadle or located directly in front of the operator or over the packing bench or conveyor line, the company added. The machine takes all standard gummed tapes from 2½" to 3" wide.

(Check #41 on card facing Page 4)

Copying Machines

Copies of packing slips, shipping forms and correspondence can be made without error and quickly by means of the new "Thermo-Fax" copying machines produced by Minnesota Mining & Mfg. Co.

The machine operates by electricity and produces completely dry copies of originals without the use of chemicals, negatives and darkrooms, the company stated. Shipping time can be saved by reproducing the customer's order as the packing slip.
(Check #56 on card facing Page 4)

For Reusable Containers

Used shipping containers can be reclaimed for further use and mistakes on new containers can be removed by means of the new Block-Out Kit made by Diagraph-Bradley Industries, Inc.

A tan obliterating fluid which can be applied with brush or roller, Block-Out ink is especially suitable
(Continued on Page 25)

YOU CAN RESERVE AIR FREIGHT SPACE ON ANY FLIGHT IN THIS TIMETABLE

On United, you can reserve Air Freight space the same way you reserve passenger space—and on any of 900 daily flights!

The same United timetable you use to get places quickly and comfortably can be used to schedule large or small Air Freight shipments (from pounds to tons).

Air Freight moves on *all* United flights. And United will reserve space for your shipment on whatever flight you select.

This is called "Reserved Air Freight." It's United's way of handling Air Freight shipments with all the speed, frequency and schedule dependability of regular passenger service. In fact, United will even pick up and deliver your shipment.

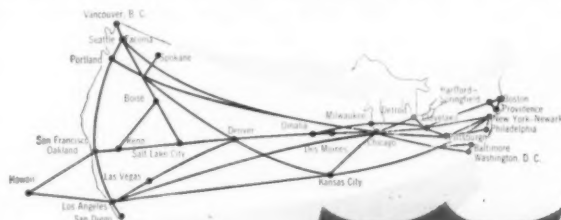
To guarantee the space you need on the flight you want, you simply call United's local Air Freight office three hours or more before flight time. They'll clear and hold the space for you.

No other airline does so much to make shipping so fast, so easy, so dependable. And at rates you'll find pleasantly surprising.

Examples of United's Air Freight rates

| | per 100 pounds* |
|------------------------------------|-----------------|
| CHICAGO to CLEVELAND | \$4.78 |
| NEW YORK to DETROIT | 5.90 |
| DENVER to OMAHA | 6.42 |
| SEATTLE to LOS ANGELES | 9.80 |
| PHILADELPHIA to PORTLAND | 24.15 |
| SAN FRANCISCO to BOSTON | 27.00 |

*These are the rates for many commodities. They are often lower for larger shipments. Rates shown are for information only, are subject to change, and do not include the 3% federal tax on domestic shipments.



Door-to-door service

SHIP FAST...SHIP SURE...SHIP EASY



For service, information, or free Air Freight booklet, call the nearest United Air Lines Representative or write Cargo Sales Division, United Air Lines, 36 South Wabash Avenue, Chicago 3, Illinois.



... for more details check #11 on HELP-O-GRAM card.

SHIPPING MANAGEMENT, JULY, 1957



COMBINED WITH

**shipping
MANAGEMENT**

and *The Air Shipper*

U. OF MIAMI TO HOLD AIR-CARGO HARVARD REPORT SUMMARY SYMPOSIUM JULY 22 THROUGH 26 ANSWERS MANY QUESTIONS

• A FIVE-DAY AIR-CARGO SYMPOSIUM WILL BE STAGED by the University of Miami with the cooperation of five airlines, July 22-26. Robert M. Kane of the university's aviation administration will be symposium director. He explained that the event had been planned for cargo personnel of the airlines. In addition to discussions by carrier executives of current problems and to exploring the potentials of air-freight markets, the university will provide instruction in the basic principles of industrial management. One big aim is to aid air-cargo salesmen and executives in better understanding of the shippers' problems.

LECTURES AND GROUP DISCUSSIONS will include these subjects: Air Freight Problems, Aids to Management Decisions, Plant Location, Plant Layout, Materials Handling, Motion and Time Study, Purchasing, Inventory Control, Production Control, Functions of Marketing, Principles of Sales, Budget and Cost Control, and analysis of the Harvard Report on 'The Role of Air Freight in Physical Distribution'. A complete syllabus will be supplied on request by Mr. Kane (Box 8042, Coral Gables, Florida).

COOPERATING AIRLINES WILL BE REPRESENTED at the symposium by the following speakers: Edwin Bishop, district traffic and sales manager, **Delta Air Lines**; Ben Atkins, cargo reservation manager, **Pan American World Airways**; Charles Hood, vice-president of sales, **Riddle Airlines**; Robert Phillips, director of training, **National Airlines**. **Eastern Air Lines** is also cooperating in the project.

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• GREAT INTEREST GREETED THE PUBLICATION of a study of 'The Role of Air Freight in Physical Distribution' by the Harvard Business School a few months ago. It was reviewed at length in this publication. However, every day the Editor finds evidence of additional interest in the Harvard report on the part of the traffic management community. We believe that the following abstract of some of the main points of the report not only answers the most popular questions addressed to us about it but also anticipates a number of further questions.



AIR FREIGHT, AS ONE OF THE NEWER FORMS of transportation, has certain characteristics which have been found historically in many newly developed modes of transportation. First of all, it is faster than previous methods. And it is more expensive.

Both the speed and cost characteristics need further clarification, and it becomes necessary to take a look at the 'transportation package' which a business really buys when it is moving things from one place to another.

In addition to speed, the 'transportation package' includes such items as the following: reliability; availability of service; management; design characteristics of equipment; effect on other costs: inventory, warehousing, packing and packaging, and handling.

Spectrum of Users

ONE COMMONLY USED CLASSIFICATION OF THE USERS of air freight is (1) those who use it 'only in case of emergency' and (2) those who regard it as a

(Continued on the next page)

HARVARD REPORT



(Continued from page one)

'normal routine means of transportation for certain commodities'. The research indicates that it is more realistic to think in terms of a spectrum of uses blending from one extreme to the other.

At one end of the spectrum of uses is the use which corresponds to what is commonly called 'emergency'. Emergencies are not sufficient either in their regularity or in their total effect to warrant an established system of air freight; certainly they do not support the system now in operation; nor does 'emergency' thinking even begin to offer a framework of analysis whereby management could determine whether to use air freight in more regular circumstances.

Examples of regular users of air freight are too few to lend themselves to any sweeping generalizations. Nevertheless certain facts begin to stand out:

1. The decision to use air freight is almost always made by 'top management'.
2. Almost always, some aspect of inventory is involved in the situation.
3. There is an obvious difference between the kind of thinking that goes into decisions to use air freight for incoming shipments and that which results in decisions on outgoing shipments.
4. There are several noticeable relationships between the use of air freight and the amount and quality of planning done by the potential user.

Inventory and Warehousing

THE CLAIM IS FREQUENTLY MADE THAT HIGH-SPEED transportation allows a company to carry smaller inventories and thereby reduce costs, but it is almost impossible to test the general validity of this claim through the use of empirical data collected from a number of individual firms. But the main conclusions of the report are:

1. Under certain circumstances some net savings are possible and are often substantial.
2. No generalizations, equally applicable to all companies, can be made about the amount of savings possible.
3. There is a real lack of reliable data on inventory carrying costs and a seeming lack of interest in knowing what they are.
4. The whole area of inventory control, as affected by transportation implications and possibilities, is an unexplored one and justifies far more attention than it has thus far received.

Following are six observations drawn from a study of the experiences of various companies,

with respect to warehousing:

1. Some successful companies, marketing on a national scale, operate without any warehouses.
2. Many companies are re-appraising their warehousing practices.
3. Warehousing tends to inject a degree of rigidity into a distribution system because once a warehouse is established, it is not easy to discontinue it.
4. The profitableness of established warehouses is frequently difficult to measure, particularly when no alternative to their use has been attempted.
5. Warehouse costs are increasing.
6. The establishment of new warehouse facilities is very often - in fact so common as to be the general rule - determined upon with little or no reference to the judgment of those outside of the sales department itself.

Conclusions

THE PICTURE OF AIR FREIGHT TODAY is a rather normal picture of buyer-seller relationships, especially in a new and dynamic situation.

* There is an increasing interest in and awareness of the possibilities inherent in the use of air freight.

* There is great need for a re-thinking of the place of transportation in business operations.

* The field of physical distribution has, generally speaking, been neglected by business management but offers many rewards for those who will re-examine it.

* Top executives of many industrial companies still look upon the traffic function as a narrow, routine one rather than in the broader light of its potential contribution to procurement and to distribution.

* The lack of adequate data on the costs of procurement and of distribution is a serious handicap to any attempt to evaluate the validity of the claims of the air-freight carriers as to the advantages of their particular method of transport.

* One of the problems involved in actually making a re-appraisal of the physical distribution situation is the locale of the authority and decision-making function within a business.

* Closely associated with the locale of the management authority and decision making is management's attitude toward the function of physical distribution.

* The exploration of the potentialities of using air freight in a business enterprise frequently serves as a 'trigger' to set off re-examination of a business area which holds many possibilities for improvement.

Traffic Statistics

• **CARGO TRAFFIC, INCLUDING FREIGHT, EXPRESS and mail,** was up 47% during the first five months of 1957 over **Allegheny Airlines**, as compared with the corresponding period of last year.

• **CARGO TRAFFIC THROUGH LEADING AIRPORTS** during May (in lbs.) — **Miami International Airport:** domestic freight and express — 4,851,782, mail — 923,567; international freight — 11,585,978, mail — 334,314. * **Four N. Y. region airports (La Guardia, N. Y. International, Newark, Teterboro):** scheduled domestic freight — 22,227,800, express — 2,279,700, air mail — 5,189,100, first-class mail — 1,716,600; scheduled overseas freight — 4,503,700, mail — 1,663,200; non-scheduled freight — 928,500; helicopter freight and express — 456,500, mail — 400,500.

Financial Intelligence

• **A QUARTERLY DIVIDEND OF 12½¢ PER COMMON SHARE,** payable Sept. 15 to **United Air Lines** stockholders of record Aug. 15, has been declared by the board of directors who met in Chicago.

• **THE ANNUAL REPORT FOR 1956 TO SHAREHOLDERS of Swissair,** total revenue is shown at 159,009,874.54 Swiss francs. Net profit is given as 2,645,490.02 francs, as again 1,577,405.98 in 1955. Concerning its freight operations, Swissair management reports: "With our weekly all-cargo flight to New York, operated twice weekly toward the end of the year, we carried considerably more freight than in 1955. In other areas, too, cargo traffic showed an encouraging rise. The improved payload situation in our European traffic, arising from the use of Convair Metropolitans, was thus particularly welcome. There is no doubt that air freight is susceptible of substantial further development. Moving into a new cargo building at Idlewild Airport enabled us to make another improvement in our service to customers."

• **SIMULATING REGULAR FLIGHT OPERATION WITH CARGO, passengers, and crew,** the first of 10 Lockheed Super Starliners to be delivered to **Air France** flew nonstop from Burbank, California, to Paris, setting a new speed record for long-distance flight last Sunday. It covered a distance of 5,939 statute miles at an average speed of 339 m.p.h., the flight taking 17 hours and 11 minutes.

DEVELOP SEALED CONTAINER FOR AIRBORNE GOLDFISH

• **LIVE AND HEALTHY, 200 GOLDFISH ARRIVED** in San Francisco on an experimental flight from Japan, testing use of a new design of sealed container for transporting them. They were carried by **Japan Air Lines**. A total of 400 was involved in the final trans-Pacific test, a culmination of other tests over a period of more than a month. The second tank with 200 was returned to Tokyo unopened to complete the test.

• **ORIGINALLY, THE FISH WERE PLACED** in the sealed containers for three days. All survived in good condition. Then they were shipped from one part of Japan to another on comparatively short flights.

• **EACH CONTAINER INCLUDES ABOUT 13 GALLONS** of water for its 200 goldfish; two-thirds is plain well water; the rest contains plankton, minute organisms for feeding the fish. After the container is sealed, a supply of compressed air is introduced.

People & Places

• **REAPPOINTED AS CHAIRMAN OF THE TRANSPORTATION and Communication Committee, Chamber of Commerce of the U. S.:** **J. H. Carmichael**, president, Capital Airlines.

• **APPOINTED CARGO SALES REPRESENTATIVE** in Milwaukee for **KLM Royal Dutch Airlines:** **Ervin John Kantorski**.

• **ELECTED AS VICE-PRESIDENT - PUBLIC RELATIONS** of the Air Transport Association: **John H. F. Hoving**.

• **AMPLE ATTENTION WILL BE GIVEN TO TRANSPORTATION** as the entire picture and many detailed problems of international trade and investment are examined at the 44th National Foreign Trade Convention to be held at the Waldorf-Astoria, New York, on Nov. 18, 19 and 20, under the auspices of the National Foreign Trade Council.

• **AS OF JULY 25, THE CARGO TARIFFS of Northwest Orient Airlines** will show the minimum charges for carriage between points in the U. S., Canada or Alaska and the Orient via the Pacific Ocean as \$7 (U. S. or Canadian currency) or the charge based on the applicable rate (excluding any applicable valuation charge), whichever is greater.

Routes * Services * Schedules

• AN ALL-CARGO SERVICE BETWEEN SAN FRANCISCO and Honolulu was launched last week (July 3) by **Pan American World Airways**. A DC-4 freighter Flight 887 will leave San Francisco's International Airport every Wednesday at 11:59 p.m. and arrive in Honolulu on Thursday at 9:05 a.m. It will return with departure from Honolulu each Thursday at 11 p.m., as Flight 888, arriving in San Francisco on Friday at 2:55 p.m.

SINCE THE NEW SERVICE MAKES CONNECTIONS with domestic carriers, second-morning arrival in Hawaii is now being offered shippers from New York and the rest of the East Coast of the U. S. PAA's Vice-President of Traffic and Sales Willis G. Lipscomb made this comment on the new service:

'WE ARE LAUNCHING THIS ALL-CARGO FLIGHT to provide additional lift for the growing demand for space between the West Coast and Honolulu. Pan American is the only scheduled airline that will offer space for large shipments such as machinery, livestock, and bulk goods that cannot be accommodated in combination passenger-cargo flights. Also, the movement of household effects, one of the most frequent shipments to Hawaii, can be easily handled in the all-cargo plane.'

• EFFECTIVE AUG. 1, THE FOLLOWING CHANGES in the all-cargo schedule of **American Airlines** will take place: Flight 800 will operate later. It will leave Los Angeles daily (except Sat. and Sun.) at 11:30 p.m. and arrive in Boston at 4:37 p.m., via Chicago, Cincinnati, and New York. * Flight 804 will operate earlier from Los Angeles, will now serve Dallas, and will operate later beyond. It will depart Los Angeles daily, except Sat. and Sun., at 10 p.m., arriving in New York at 4:40 p.m., via Dallas, Chicago, and Cincinnati. * Flight 802 will operate earlier and its Los Angeles landing will be discontinued. It will leave San Francisco daily, except Sat. and Sun., at 10:15 p.m., arrive in New York at 4:40 p.m., via Dallas, Memphis, Nashville, and Baltimore. * All flights use DC-6A equipment.

ON AUG. 1, AMERICAN WILL ALSO INTRODUCE the first transcontinental nonstop Boston-Los Angeles service, with daily DC-7 flights. Westbound, the new flight will leave Boston at 12 noon and arrive at Los Angeles, at 5:55 p.m. Eastbound, the flight will leave at 8:30 p.m. and arrive at 7:25 a.m. All times given are local. (AA now has two daily

one-stop DC-7 flights between Boston and Los Angeles - one stopping at Chicago, the other at Cleveland.)

• THREE SOUTH AMERICAN CAPITALS - BOGOTA, QUITO and Lima were linked by one air carrier directly from New York for the first time last Tuesday, July 9, when **Avianca** opened that service with Constellations which will be leaving N. Y. International Airport at 12:30 a.m. on Tuesdays and Saturdays. With Jamaica the only stop en route, the new service is scheduled to arrive in Bogota at 9:50 a.m., nine hours and 20 minutes after leaving New York, in Quito at 1:40 p.m., and in Lima at 6 p.m. The new service augments Avianca's three flights a week to Bogota via Jamaica and Barranquilla, and the two flights to Colombia via Miami, Jamaica, Barranquilla, Medellin and Cali.

• A WESTBOUND ALL-CARGO FLIGHT IS LISTED on the **Northwest Orient Airlines** schedule, effective July 8. Operating with DC-4 equipment, on Wednesdays and Fridays only, it leaves Minneapolis-St. Paul at 10 a.m. and arrives in Seattle-Tacoma at 3:30 p.m., via Spokane.

• SCHEDULED TRANSATLANTIC FLIGHT OPERATIONS BEGAN 20 years ago on July 5 with survey flights in opposite directions, **Pan American World Airways** from Botwood, Newfoundland, to Southampton, England, and **Imperial Airways**, now the **British Overseas Airways Corp.**, from Foynes, Eire, to Botwood. Both used flying boats, which somewhere in mid-Atlantic exchanged radio messages to mark the occasion. The flights were uneventful but they began a new era in world transportation.

• EFFECTIVE JULY 15, A COMBINED AIR-TRUCK FREIGHT service will be operated by **United Air Lines** and **Consolidated Freightways**. The service will bring the advantages of air freight transportation to shippers in more than 900 cities in 16 states regularly served by Consolidated; most of them do not have direct air service. Under the arrangement, shipments originated by United will be flown to the airport city nearest destination, then transferred for final delivery by Consolidated. Shipments will also be picked up by Consolidated in cities without air service for trans-shipment by United.

Book Reviews

Testing Methods

The National Safe Transit Committee has published a useful little booklet on "Test Procedures." It covers in detail the methods used in NST Projects 1 and 1A, wherein packaged products weighing over 100 pounds and under 100 pounds, respectively, were tested.

This latest edition was prepared by the Committee's Technical Planning Division, chairmaned by P. W. Bush, Westinghouse Electric Corporation, under the overall direction of NST General Chairman R. F. Bisbee.

The Project 1A test procedures specify that all packaged products weighing 50 pounds or over and under 100 pounds be dropped from a height of 12 inches. Packaged products weighing less than 50 pounds are dropped from a height of 18 inches. A vibration test precedes the drop test in both weight categories. An optional Conbur Incline test may be used as an alternative in the 50 pounds or over weight category, the booklet suggests.

The Committee's overall test procedures resulted from exhaustive correlation work conducted over a period of 27 years. The procedures were formulated in 1948 as an industry standard, and the latest correlation work for the purpose of corroborating existing data covered a period of 10 years. This work was accomplished through cooperation with all modes of transportation and their associations, and has been substantiated by many manufacturers, representative laboratories, and carriers.

Individual copies of the latest "Test Procedures" booklet may be obtained at no charge from the National Safe Transit Committee, Associations Building, 1145 Nineteenth Street, N. W., Washington 6, D. C. A charge of 25 cents per copy is made for orders of two or more copies.

Trucking Statistics

ANYONE LOOKING for facts, statistics, graphs and charts on the trucking industry's progress between 1904 and 1955, is referred to a booklet, entitled, "American Trucking Trends, 1956." Published recently by the American Trucking Associations, the booklet covers such subjects as: the number of trucks in use for every year between 1904 and 1956; truck registrations by states; truck-trailer sales; intercity ton-miles; agricultural products carried by truck; state, local and federal taxes paid by truckers; distribution of wages.



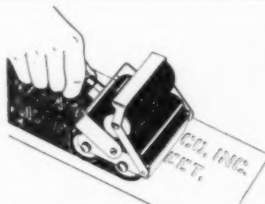
There once was a salesman who wrote
"Please send me some hats to promote."
When at last they arrived
The Spring market had dived.
He said "D --- it! That sure gets my goat!"

Slow deliveries are costly in lost orders, cooled interest, inventories tied up. Save by shipping BOAC air freight! Check with your Cargo Agent or nearest BOAC office. No cargo problem is too tough for BOAC to handle!

B.O.A.C.

General Sales Agents for Qantas
Australia's Overseas Airline

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NOW YOU CAN HAVE THE PERFECT COMBINATION OF LARGE EASY TO READ STENCIL MARKING AND LIGHTNING-FAST APPLICATION DIRECTLY TO SHIPPING CONTAINER!

DESIGNED for faster stenciling on corrugated cartons, smooth wood boxes and all other smooth porous surfaces.

THE Ideal
TRADE MARK

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- Sturdy, all brass machined parts.

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TRADE MARK



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★ marking on metal, glass, plastics, etc.

Write today for complete catalog and literature on these time tested products.



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smoothly roll on perfect impressions in one rapid stroke 3 TIMES FASTER than brushing or spraying
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with self contained ink roller holds enough ink to stencil 500 to 1000 impressions on one inking.
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Convenient to carry around.
- **"ROLL-A-STENCIL" INK** now available in colors.

Shipping departments welcome this completely new and faster method. Order your set today on a money back guarantee. Set shown includes pint can of black ink and pouring spout. **\$10.50 plus postage**

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APPOINTED: Joseph L. Miller, GTM, Birdsboro Steel Foundry & Machine Co., Birdsboro, Pa., has been DTM, Western Maryland Railway Co., since 1953. Miller is pres., Reading (Pa.) Traffic Club... John M. Sticklen, TM, Butler, Pa. Works, Armco Steel Corporation. Was rate checker, general traffic dept., Armco, Middletown, O. . . Charles J. Strom, TM, R. M. Hollingshead Corp., Camden, N. J. Formerly was traffic supervisor. Strom will be assisted by William F. Dahms, ATM. . .



J. L. Miller

F. Kaprive

Frank Kaprive, TM, Hagan Chemicals & Controls, Inc., Calgon Company Div., Hall Laboratories Div., Pitts. Company also announced establishment of traffic dept. . . James R. Szili, GTM, Gateway Transportation Company. . .

MEETINGS: Pacific Traffic Association held successful "1957 Extravaganza" June 11. Program was devoted to airlines, freight forwarders. Rudy Enberg chaired . . . San Francisco Transportation Post, American Legion, heard talk by Capt. Harry W. Leiser, director, Western Traffic Region, Military Traffic Management Agency, at luncheon May 28. . . San Francisco Bay Area Chapter, National Defense Transportation Association, held dinner May 16 to observe "National Defense Transportation Day." . . .

ELECTED: Andrew A. Gusko, pres., Delta Nu Alpha Chapter 38, Trenton, N. J. Other new officers: James D'Arcy, Carl Palmer, VPs; Harry Bentz, Sec'y; John Pecci, treas.

SCHOLARSHIPS: Raritan (N. J.) Traffic Club recently set up two annual scholarships of \$300 each for evening students in Rutgers Certificate Program in Transportation and Traffic Management, Newark, N. J. Check for \$600 was presented by

Ralph Keck, club pres., TM, Socony Paint Products Co., to Dr. Lewis Webster Jones, University pres.



Dr. Lewis W. Jones, Pres., Rutgers Univ. (left) accepts \$600 check from Thomas J. Kilgullen and Ralph M. Keck, Pres., Raritan Traffic Club.

Three-year certificate program covers transportation principles, traffic management, motor traffic management, ICC practice and procedure, economics, business English.

HONORED: Howard M. Daschbach, GTM, Columbia-Geneva Steel Div., U. S. Steel Corporation, at testimonial luncheon May 27. Affair marked Daschbach's retirement after 46 years' service with company.

Womens' Traffic Club (Cleveland) toured Akron terminal, Roadway Express, Inc., May 9, to see how freight is handled. Some 85 members participated. Claire Junowski, program chairman, directed arrangements.



Members of Cleveland Womens' Traffic Club on recent tour of trucking terminal.

COMING EVENTS: Annual Steamship Golf Tournament & Stag Dinner, Los Angeles Transportation Club, July 26 . . . "Top Management" Nite, Worcester Traffic Ass'n, October 21. Frank R. McDermott to chair affair. . . 10th annual national convention, Quartermaster Ass'n, October 3, 4, San Francisco. . . Educational program, Southeast Traffic Club of L. A., Aug. 22, at L. A. Police Bldg. Mike DeLorenzo to chair.

Los Angeles Transportation Club sponsored "World Trade Week"

luncheon May 21. Speakers included: Eugene D. Flaherty, VP, Southwestern Div., American President Lines; J. F. Parkinson, TM, L. A. Harbor Dept. Raymond R. Abbott, TM, Moore-McCormack Lines, Inc., chaired . . . Trenton, N. J., Chapter 38, Delta Nu Alpha Transportation Fraternity featured debate at May 7 meeting. "Present Methods of Regulation Benefit All Modes of Transportation" was debated by members of Trenton Chapter, Philadelphia Chapter 4. . . Wisconsin Valley Traffic Club held 10th annual Golf outing June 19. E. A. Wilson chaired. . . L. A. Southeast Traffic Club was scheduled to hold annual "Air Night" July 11 at Inglewood International Airport. Dan Connell, Western Airlines, chaired.

APPOINTED: A. R. Brobst, TM, Floor & Industrial Operations Div., Armstrong Cork Company, reported O. A. DeCroke, GTM. Brobst served previously as chief traffic analyst . . . T. M. Caiazza, ass't VP, traffic, Santa Fe Railway, according to announcement by G. E. Duffy, traffic VP.

News-Promotions

(Continued from Page 15)

operations; associated with parent company, Minnesota Mining & Manufacturing Co., 14 years.

MINNESOTA MINING & MANUFACTURING COMPANY reported election of: Joseph C. Duke, exec. VP in charge of coated abrasives, adhesives and coatings; Bert S. Cross, exec. VP, graphic products; Dr. Byron J. Oakes, VP, chemical products group; Cecil C. March, VP, coated abrasives. Duke has been with company for 36 years, Cross for 31 years.

Allyn C. Beardsell, pres., Coatliner Laboratories, Inc., reported appointments of William E. Hughes to Washington, D. C. Division staff, Roy H. Cooley as Seattle, Wash. representative. Hughes has been with National Wooden Box Association.

ELECTED: Gregory S. Prince, VP, general counsel in charge of Law Dept., Association of American Railroads. Pres. William T. Faricy stated that Prince succeeds the late Thomas W. Preston. Prince formerly was general solicitor; will be succeeded in this post by William M. Moloney, former general attorney. . . Russell L. Dearmont, pres., Missouri Pacific Railroad, was elected to AAR board of directors. . .

MEN — METHODS — MATERIALS



SUPERIOR CUSHIONING PADS & BLANKETS and save money, too!

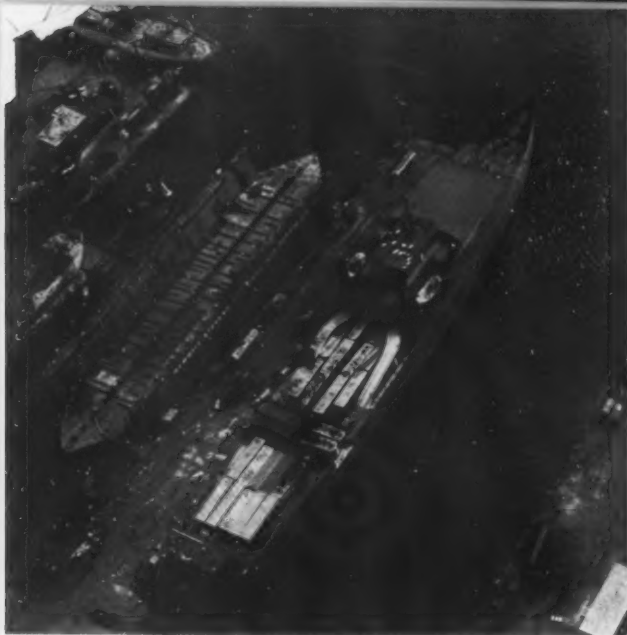
PROTEX pads and blankets give you the *maximum* interior cushioning protection obtainable and fit virtually any product or assortment you can name! The cost is substantially lower than most other forms of interior cushioning and take only a fraction of the time to pack. Avail yourself of this *important* money-saving clean method of packing. The protection your products get is superb...resists all forms of shock and protects the finish of the product as well. Ease of packing, availability of ample supplies of packing material on hours notice are important too...you don't have to order far in advance of production or store supplies all out of proportion to their rate of consumption.

Consult us— Present your packing problems to us for complete package engineering design and service by experts. We will show you how to improve package performance and save money too!

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Aerial view shows TMT Carib Queen loaded with sealed trailers prior to its maiden voyage from Jacksonville, Fla., to San Juan, Puerto Rico. Trailers are hoisted from trucks on pier to ship.

"Fishy-back" Service Begins Between U. S. and Puerto Rico

DIRECT THROUGH SERVICE to some 23,000 communities in the continental United States and points throughout Puerto Rico and the Virgin Islands was inaugurated recently by Railway Express Agency and TMT Trailer Ferry, Inc.

Moving under regular domestic express receipts, shipments between the United States and the islands will be transported in sealed trailers to and from Jacksonville, Fla., the U. S. port city, and San Juan, Puerto Rico and Christiansted,

Southeast To Get "Piggyback" Service - 55 ft. Cars



First "Piggy-Back" service to Southeast features 55-ft. long flat cars specially designed to accommodate huge trailers. New ramps and trackage were installed at terminals to insure speedy loading and unloading of trailers.

INAUGURATION of the first "Piggy-Back" operation in the Southeast has been announced jointly by H. E. C. Hawkins, chief freight traffic officer of the Florida East Coast Railway, and A. E. Greene, Jr., vice president and general

manager of the Great Southern Trucking Company.

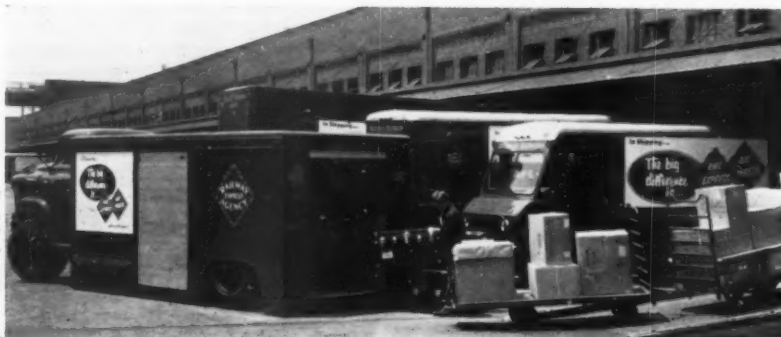
Under terms of an agreement just completed by the two transportation agencies, trailers of

(Continued on Page 30)

Truck Body Lowers To Any Elevation For Easy Handling

New type of elevator-type truck whose body can be raised and lowered in 12 seconds, is demonstrated by Railway Express. Body of this truck is actuated by hydraulic mechanisms and can be adjusted to level with variable platform heights for expedited "roll-on" or "walk-in" sidewalk loading.

Photo and Data Courtesy Thompson Trailer Corp.



New Products

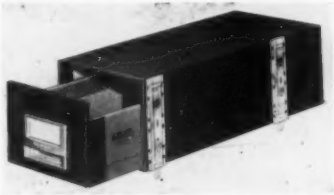
(Continued from Page 15)

for corrugated boxes as well as wood crates, cloth sacks and metal drum heads. One coat of the ink covers all old stenciling, crayon marks, and labels. Drying is immediate.

(Check #42 on card facing Page 4)

Shipping Forms File

Filing and storage of shipping department business forms is the special purpose of a new corrugated fibre-board file, just introduced by Bankers Box Company.

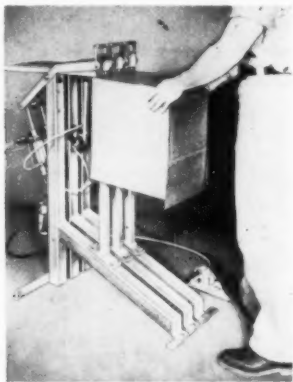


The Saxonsteel file has inside dimensions of 9" wide, 7" high, and 24" deep to handle freight bills, bills of lading and other forms used by the transportation industry. The steel framework carries the entire weight load at four equal points, permitting the files to be stacked to any height. Interlocking units can bolt together side by side for extra rigidity, the company stated.

(Check #43 on card facing Page 4)

Air-Operated Stapler

Upwards of 600 staples can be driven per minute to close bottoms of cartons by means of the Model BSA Triplex, an air-operated bottom stapler, developed by Container Stapling Corporation.



Cartons set up with this stapler may be used many times, the company stated. This machine drives three staples simultaneously on the initial stroke, sealing the ends of the carton. On the next stroke, the two outer heads are inactivated by means of a mechanical trip. The center head

(Continued on Page 27)

How to get your shipments out faster, at less cost

New 16-page booklet shows how easily it can be done through more systematic addressing of cartons, labels and tags

Slow, old-fashioned methods of stenciling and labeling can seriously delay your shipments. While a shipment sits on the dock ready to go, an office girl is writing out labels by hand. While a stack of cartons waits to be stenciled, a shipping clerk spends precious minutes looking through the files for the right stencilboard. And, because the pressure is on the shipping department to get orders out quickly, cartons are improperly marked and then lost enroute.

A vital operation

The stenciling and labeling of shipments is one of the most important operations in the plant because nothing gets shipped until it's been addressed. You can have the most carefully laid plans for getting your product from the production line to your customer, but if it isn't labeled, tagged or stenciled it never gets out of the plant.

Efficiency-wise companies are rapidly discovering that the key to a really efficient shipping operation is a system for addressing. This system should be fast, inexpensive, require a minimum of labor, and be tailored to your particular order-processing and material handling procedure.

How to streamline your shipment addressing for speed and economy

Weber Marking Systems
Dept. 18-G, Mount Prospect, Ill.

Available now . . .

Send for your free copy

CONTAINS USEFUL INFORMATION

- How to determine the efficiency of your present shipment addressing operation
- The key to a modern, efficient shipping department
- The latest direct-to-carton stenciling systems
- Printing and addressing your shipping labels in one operation
- How to prepare your shipping stencils with your order-invoice or bill-of-lading forms

Comprehensive booklet

In the 16-page booklet offered here you will find such a system. Thousands of companies who have already adopted them have cut their shipment addressing time by as much as 50% to 70%. Send for your free booklet. There is no obligation.

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Sales and service in all
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INDIVIDUAL _____
POSITION _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

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TUNING IN



Rutgers Awards Certificates to 25 In SIPMHE-Sponsored Course

Rutgers University's Extension Service recently awarded certificates to 25 evening students upon their successful completion of a 16-session course in industrial packaging. Held for the first time in Newark, N. J., in cooperation with the Eastern Division of SIPMHE, the course had a total enrollment of 25 students.

The course was designed particularly for those actively engaged in packaging. Classroom studies were supplemented by several field trips to leading container manufacturing plants. The final session of the course provided each student the opportunity to solve individual packaging problems through discussion with a panel of packaging experts provided by SIPMHE. A similar course is planned to begin next September at Rutgers.

New Pittsburgh SIPMHE Chapter Receives Charter, Elects Officers

Election of new officers and charter presentation ceremonies highlighted the May 13 meeting of the recently organized Pittsburgh Chapter of the Society of Industrial Packaging and Materials Handling Engineers.

SIPMHE's executive vice president, John Mount, manager, Marine Service Division, Insurance Company of North America, presented the charter. The new Chapter officers are: president, Francis C. Aland, Pittsburgh Plate Glass Company; vice president, J. Richard, Bostitch Sales & Service; secretary, P. D. Majesky, Pittsburgh Plate Glass Company, and treasurer, B. Chizek, Pittsburgh Coke & Chemical Company.

Nat'l. Defense Transportation Ass'n. Gets \$20,000 Gift to Carry on Program

The Executive Committee of the National Defense Transportation Association, has accepted an offer made by Colonel Thomas J. Weed, USA (Ret), to establish a \$20,000 Foundation from his personal estate for the purpose of perpetuating the patriotic aims and objectives of the Association, it was announced recently by Colonel Francis W. Crary, executive vice president of the association.

The NDTA is a non-profit organization dedicated to furthering the transportation industry's preparedness for any future war effort. The committee authorized the following officials to accept Colonel Weed's grant and carry out his intentions: E. G. Plowman, vice president, U. S. Steel

Corporation and N.D.T.A. chairman of the board; Brig. Gen. Clark Hungerford, USAR, president, Frisco Railway System and N.D.T.A. national president; and Col. Crary.

Fibre Box Ass'n To Hold 4th Annual Competition Oct. 17

"New Directions in Packaging" will be the theme of the 1957 Fibre Box Competition to be held by the Fibre Box Association in Washington, D. C., on October 17 and 18, it was announced recently by Albert W. Luhrs, executive manager.

The latest developments in corrugated and solid fibre shipping containers as well as new uses of fibre board will be featured. Fibre box manufacturers are expected to enter more than 300 different examples of their products in this fourth competition conducted by the Association. Manufacturers will compete for awards in ten different end use classifications.

Arrangements for the competition are under the direction of a special Committee, Chairmaned by Allan E. Miller, Vice-President, Allcraft Container Corporation. Other committee members are A. B. Damon, International Paper Company; T. J. Gross, Union Bag-Camp Paper Corporation; B. J. Kirstein, Container Corporation of America; N. G. Rennie, Wabash Fibre Box Company; and J. H. Stone, Stone Container Corporation.

Government Honors McCarthy, Ex-Official Of Containers & Packaging Division



Vern I. McCarthy (right), vice president of Vulcan Containers, Inc., is congratulated by Frederick H. Mueller, Assistant Secretary of Commerce for Domestic Affairs, upon his completion of six-month tour of duty in Washington as Deputy Director of Containers and Packaging Division, Business and Defense Services Administration, Commerce Dept. Others in photo are: Rep. Harold R. Collier of Illinois (left) and H. B. McCoy (second from right), BDSA Administrator, who presented McCarthy with a flag Upon leaving Federal post, McCarthy was appointed consultant on steel shipping containers to Containers and Packaging Division.

New Products

(Continued from Page 25)

then drives a staple across the center seam. The operator then turns the box and staples the other end in the same manner.

(Check #44 on card facing Page 4)

Tacker Safety Feature

Incorporation within its T-50 automatic gun tacker of a new safety device, a spring-steel catch mechanism that locks the pusher rod so firmly that it cannot be accidentally dislodged, has been announced by Arrow Fastener Co.

The pusher rod is the long steel rod that feeds staples as the gun's trigger is squeezed. The new safety device is designed to put sufficient pressure on the engaging catch of the rod so that it cannot be jarred loose in a worker's pocket.

(Check #45 on card facing Page 4)

Electric Dispenser

Wasteful estimating of gummed tape can now be eliminated by using the 200E Electric Tape Machine made by Ideal Stencil Machine Company.

By pressing a lever on the "select-automatic" keyboard, the exact amount of tape needed is measured, moistened, cut and dispensed. The new 3-inch model will cleanly cut all gummed tapes, even reinforced and cloth tapes up to 3 inches wide, the company stated.

(Check #46 on card facing Page 4)

New Hand Truck

Elimination of skidding and excessive labor in dragging loads up and down is possible with the new Ogborn E-Z Climb hand truck, it has been announced by Bimba Hardware & Mfg. Co.



A two-wheel all-welded vehicle, the E-Z Climb, has two rocker arms which act like an extra pair of wheels and allow for gentle lowering from one step to the other. This hand truck is



To be safe, use Red Streak, the tape that seals so tightly that dust, dirt and moisture can't get in . . . and nothing can drop out. No other form of closure offers so much for so little.

The Brown-Bridge Mills, Inc., Troy, Ohio

New York, 6 East 45th St. • Chicago, 608 S. Dearborn • Philadelphia, 315 Clwyd Road, Bala-Cynwyd, Pa.
St. Louis, 4378 Lindell Blvd. • Ft. Worth, 2416 Cullen St. • San Francisco, 420 Market St.

... for more details check #4 on HELP-O-GRAM card.

available in either steel or aluminum with semi-pneumatic or completely pneumatic tires and in six modern colors.

(Check #47 on card facing Page 4)

Squeeze Bottle Marker

Porous surface marking is a simple job with the new Squeeze Felt Point Marker, according to the manufacturer, Marsh Stencil Machine Co.

This squeeze bottle marker holds three-quarters of an ounce of water color ink, enough to make a 1/4-inch wide mark for over a mile, the company stated. Ink is fed to the felt point by squeezing the flat sides of

the plastic bottle. Squeeze is available in eight colors.

(Check #48 on card facing Page 4)

New Literature

"Automation-Labelation" is the title of a new guide published by Allen Hollander Co., Inc. The guide describes how marginally-punched pin feed labels can be produced in automated systems.

Methods of adapting standard typewriters to Pin feed operation and the use of pressure-sensitive, water gummed, ungummed and thermoplastic labels in other automatic machines are detailed. The pamphlet lists various



Pencils without erasers? ... never! How about your firm? Got COVERMARK on hand?

Covermark is a fast-drying liquid you can brush, spray, or roll on corrugated cartons, wooden crates, and metal or plastic drums that removes any unwanted markings and gives you a perfect surface for remarking in a matter of minutes.

1. RETURNED SHIPMENTS — Cover old markings with COVERMARK and re-use the same carton.
2. MARKING ERRORS can be corrected in a jiffy. Your container keeps that "like-new" look.
3. CHANGING MODELS mean new spec numbers. Cover old markings and substitute new ones.
4. EXPORT & IMPORT containers can be re-used by altering special markings with COVERMARK.

COVERMARK saves you time, containers, and money. Let COVERMARK be your "Shipping-room-eraser."

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types of pin feed labels according to stock, construction and put-up, as well as surfaces that can be labeled and types of machines that can be used.

(Check #49 on card facing Page 4)

Two new folders on staplers, tackers and pliers have been issued by The Fastener Corporation. Both illustrated and in color, these folders show various usages of these tools in expediting packing and shipping and ensuring firm closure. The company's new Foot Power Stapler for closing cartons is also covered.

(Check #50 on card facing Page 4)

Details of the door-to-door air-surface freight service now being offered by Slick Airways, Inc., are covered in a new color folder. How the airline serves 5,000 markets with maximum speed and care is told in this folder.

(Check #51 on card facing Page 4)

Cushman & Denison Manufacturing Company has published an illustrated eight-page and two-color brochure on their line of Flo-master felt tip marking pens. Functions of these instruments, the six interchangeable felt tip shapes, transparent and opaque inks and cleanser are described.

(Check #52 on card facing Page 4)

Potdevin Machine Co. has summarized the advantages and explained the operations of its Mini-Labeler (label gluing) machine and its Dispens-A-Label (label moistening) machine in two new color folders. The folders are amply illustrated, well laid out and tell the story in a nutshell.

(Check #53 on card facing Page 4)

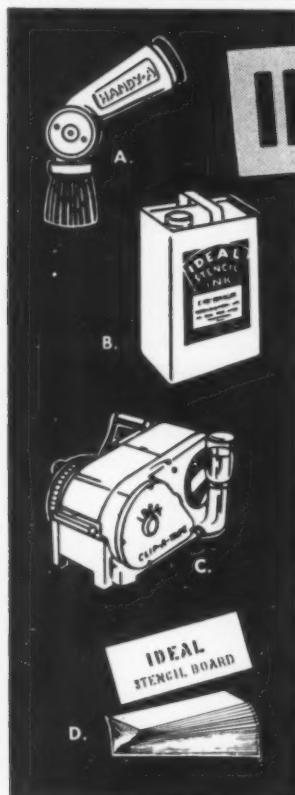
Of interest to shipping departments is a new 28-page catalog which describes the complete line of Duo-Fast manual and air-operated stapling and tacking equipment. Published by Fastener Corporation, this illustrated booklet contains a special section detailing how the stapling equipment is used in 16 basic industries. In addition to a brief description of a different stapler or tacker, each page lists model numbers, the type of staples that can be used and advantages for the user. Guides and accessories are also considered.

(Check #54 on card facing Page 4)

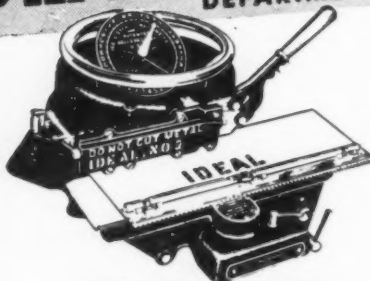
Self-Adjusting Dock Boards

Magnesium dock boards which self-adjust to truck or trailer floor levels automatically, have been introduced by Magline, Inc.

These Perma-Docks are designed for installation on concrete docks. They provide minimum set-back to



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IDEAL STENCIL MACHINE

Exclusive Automatic Carriage. Minimum Margin Grip. Three Popular Letter Sizes.

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Natural Grip. Push-Button Ink Control.

B. STENCIL INK Easy-Flowing. Black and Colored.

C. CLIP-A-TAPE Moistens, measures, cuts up to 3-ft. Gummed Tape in $\frac{1}{4}$ Second!

D. STENCIL BOARD Clean-Cutting, Long-Lasting.

FREE SHIPPING GUIDE! Important time and money saving hints for your shipping department. Fully illustrated. Write for your copy today!

IDEAL

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108 IOWA AVE., BELLEVILLE, ILL.

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allow more usable dock space and they swing up and out of the way when not in use, the company stated. Made of magnesium for lightness and ease of handling, they can be quickly raised or lowered. Optional equipment includes an electric-hydraulic system for fully automatic operation.



Additional features include special safety curbs for power truck tire protection.

(Check #55 on card facing Page 4)

"LISTEN MR."

(Continued from Page 14)

ship the balance of the order prepaid and absorb the transportation charges. Although this is extremely costly from the point of view of the shipper, it does have the advantage of maintaining customer good will. However, if such a policy is established, it might be well to have the Traffic Department figure the difference in charges and absorb only the difference between what the shipment would have cost had it gone out in one consignment and the excess created by the double shipment. This would tend to reduce the total amount absorbed by the manufacturer.

Unfortunately, although a Traffic Department may do an excellent job at handling a back-order situation the very nature of the problem brings only condemnation from all parties involved whether it be within the manufacturer's own plant or the dealers receiving the merchandise.

Packing A Punch

(Continued from Page 3)

containers for the transportation industry is universally recognized as necessary.

One may well ask how long it will

SHORT RUNS MADE AT MASS-PRODUCTION COST

AUTO-NAILERS

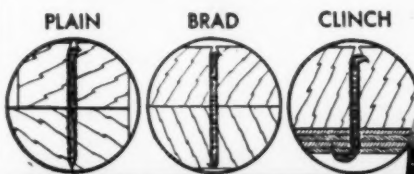
Speed Production of

**SKIDS
SHOOKS
PANELS
CRATES
PALLETES**

Makes and drives its own nails in accurate lengths up to 2 3/4 inches, as fast as 3 NAILS A SECOND. Auto-Nailer nails stay put... won't back out.

Multiple installations may be used with single or multiple remote control. Hurricane drive eliminates splitting. Controlled depth drive; controlled countersink.

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AUTO-NAILER

AUTO-NAILER CO., 269 Marietta St., N.W., Atlanta 13, Georgia

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be before traffic managers, packaging engineers, and transportation experts group themselves together for the necessary exchange of information on an organizational basis.

HOW TO MAKE fewer freight cars haul more goods faster, and at the same time keep costs down, is a major problem for railroads of today. Automation has been introduced into car building plants as well as in the freight yards. Custom tailoring of rail cars to specific customer needs still goes on, but some companies strongly favor standardization.

Some 110,000 freight cars of a standardized type which permit auto-

mation and mass production and cut retooling to a minimum have been produced by Pullman Standard Car Mfg. Co., subsidiary of Pullman, Inc., since 1946, according to Sam Dawson writing in the "New York Post" recently. The original program emphasized box cars, but gondolas and covered hoppers have been added in recent years.

Despite the fact that "the number of freight cars has diminished by about 30 per cent" in the last 30 years, railroad men are calling for more cars to meet an expanding economy. Predictions are that 1,000,000 new cars will be needed in the next ten years.



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HERCULES-9



STENCILS SAVE TIME

Bird & Son, Inc., Charleston Heights, S. C., are enthusiastic about their Marsh Stencil Machine because it eliminates errors in shipping and marking. STENCILS save time for their men. The big, bold stenciled address prevents packages from going astray. Their customers are pleased with the neat looking shipment on arrival.

FREE

Catalog, and stencil cut with your name. Clip this ad to business letterhead with your name. MAIL TODAY!

MARSH

MARSH STENCIL MACHINE CO. • 75 MARSH BLDG. • BELLEVILLE, ILL., U.S.A.

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by Leslie A. Bryan

Director, Institute of Aviation
University of Illinois, Urbana

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Company

"Fishy-Back" Service

(Continued from Page 24)

Fredericksted and Charlotte-Amalie, the port cities for the Virgin Islands.

The new trailer roll-on, roll-off trailership operation of TMT is providing the service between the mainland and island points. Vehicle pickup and delivery services in Puerto Rico and the Virgin Islands as well as in the U. S. are included in a single through charge.

Southeast "Piggy-Back"

(Continued from Page 24)

the trucking company will be carried daily on specially equipped flat cars between Jacksonville and Miami.

Special "Piggy-Back" facilities have been constructed at the railway's Miami and Jacksonville terminals including trackage and ramps for the quick loading and unloading of the trailers. The railroad has also made arrangements for the trailers to be handled on a fast "through" freight schedule between the two cities.

Switch to Wirebounds

(Continued from Page 11)

installation of controls, working parts, and insulation, takes place after the bodies have been lowered onto the base of the crates. The base of a unit fits snugly within wooden blocking attached to the prefabricated skid base of its crate so that it can not shift during shipment or handling.

Upon completion of final assembly of a heating unit, a bag of insulating material is slipped over it to protect it against dust and moisture. Then the top of the crate is placed in position after just one piece of blocking is nailed into position to accommodate the top of the specific size unit being packed. Three other pieces of blocking are permanently pre-fixed to the crate top.

Unit Secured in Shipment

The unit is prepared for shipment finally by being "wrapped up" in a one-piece wirebound blank that comprises the four sides of the container. It snugly engages the base and top of the crate to exert slight pressure that holds the unit safely. The blank is closed with wire-loop fasteners, which permit a crate to be opened quickly and safely at the site of installation without special tools.

Air Cargo Symposium

a bank-and-turn indicator and an artificial horizon, instruments used in navigating aircraft. These items seemed to suffer a high shipping (Continued from Page 10)

mortality rate, even when placed in wooden crates."

The question-and-answer period centered to a great extent on the development of new and expendable shipping containers, and the consolidation of shipments. When asked "What are the airlines doing on consolidation of air cargo," James McCormack, manager of packaging and materials handling for American Airlines, answered:

"We've been working for some years on a container for industry. We see the need. We hope to have this container available in the future, to put packages into it in advance of the aircraft's arrival, and thus cut ground time during loading and unloading."

Asked again, "Have you explored the question on specific containers?" McCormack replied:

"We have tried expendable containers. There is still a question as to whether long-life or expendable cartons are more economical. We will know soon."

Q. Who sponsors your containerization program?

A. American Airlines in this case.

Mr. Rickard and Wallace P. Neth of Seaboard & Western Airlines pointed out that household van containers have been experimented with. Neth stated that the real solution to container problems involves getting a container that can be used where the goods are produced, and unloaded where the goods are finally received.

An engineer in the audience suggested that the airlines ought to get together in a uniform association, similar to the railroads, to develop better packaging. Did the airlines have such an association?

Mr. Harris replied: There are associations, such as IATA. With respect to individual initiative, we don't subordinate our individual creativity to a group. At this stage, we feel that it is better to work individually. The fact that we haven't made more progress does not signify lack of cooperation. We do cooperate.

Answering another question, Mr. Harris stated that the 6 to 70 thousand pound payload bracket is coming soon. Airlines are in an interim stage, waiting for larger planes before installing some of the newer packaging ideas and materials handling devices.

One member of the audience felt that industry was perhaps losing a bet by not looking at what the military is carrying. Some of the tremendous volume of information the air force has come up with could be made available to, and used by, industry. Another asked for educational literature on "how to package for air cargo shipping."

In answer, Mr. Russ pointed out that each firm has an individual problem. It is difficult, he said, to produce literature which applies to more than



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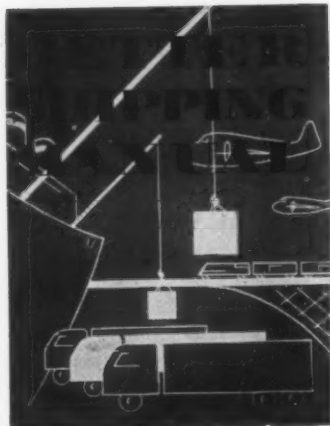
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three or four firms.

Both he and Mr. Emery pointed out that airline loss and damage claims were extremely low. Mr. Russ mentioned figures of 7/10 of 1%, and Mr. Henry stated that his own company's claims were 1/10 of 1% of gross revenues.

Mr. Harris stated, our (the airlines') packaging rule is "It shall be adequate." We can't write a specification for every single commodity. We are going to keep the development of air transport on a sensible, sound, simple basis. We don't intend to subscribe to old forms of transport."

Mr. McCormick told the group that "American Airlines is going to contact four or five shippers for their viewpoints when we come up with containers," and "when we get our new planes we will work on an extensive materials handling program."

National Packaging Competition (Continued from Page 5)

per group, in the name of one person only, and the entry application form must be signed by one person only. Awards will not be made to two persons or to groups.

Judging of entries in the six packaging groups will be based on the following point scores:

| | Points |
|--|--------|
| Safety: the degree of product protection afforded by the package | 25 |
| Conformance to carrier requirements: compliance with various classifications rulings governing the commodity and its packaging | 5 |
| Ingenuity: the application of engineering principles and of materials and methods | 25 |
| Ease of handling in assembling and packing operations | 4 |
| Ease of handling in shipping and loading | 4 |
| Ease of unpacking | 2 |
| Economy in connection with the use of materials; savings in weight or transportation; or savings in loss or damage claims and complaints | 25 |
| Utility from a practical, overall standpoint as in adaptability to production, carrier facilities, warehousing, etc. | 10 |

Judging of the Materials Handling entries will



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be according to the following point scores:

| | Points |
|--|--------|
| Reduction of handling costs | 15 |
| Economies in warehousing and utilization of storage space | 15 |
| Increase of plant capacity and production, and improvement of working conditions | 20 |
| Reduction of inventory | 10 |
| Improvement of product protection | 5 |
| Reduction of handling hazards | 10 |
| Facilitation of materials control | 10 |
| Speed-up in delivery of product to consumer | 15 |

Complete details of the Competition with entry forms are available from the headquarters of the Society of Industrial Packaging and Materials Handling Engineers, Suite 611 — 111 W. Jackson Blvd., Chicago 4, Illinois.

Pressure Sensitive Tape

(Continued from Page 12)

an insurance firm, participated in the test by performing the inspections, unloading and re-forwarding at the various stops.

The project represented the first such venture by members of the Council to give their tapes an in-use test on a prolonged voyage accompanied by intensive handlings and various climatic conditions. The Council expressed its satisfaction that the favorable results of the test demonstrated many of the tapes' utility values for export shipping such as their bundling, strengthening, sealing, packaging, holding, flexibility and anti-pilferage qualities. Official and independent marine insurance surveyors' report verified that the tapes, containers, and contents sustained no impairing damages during the voyage. The most critical item to package for the shipment was demonstrated in working order for a group of reporters at a reception in New York City.

William Boylan, president of the council, stated: "We are very pleased to have been able to conduct this test, not only to demonstrate to potential consumers the tapes' utility, but we wanted to know ourselves in what condition the tape, containers, and contents would return after undergoing the rigorous conditions set up for the packages."

According to the council, self-adhering tapes cannot be pulled from a package and then replaced without leaving tell-tale signs because it will tear the carton, thereby helping to prevent pilferage. The tapes, which come in many different sizes and colors, can be applied by hand and are adaptable to almost any degree of automation without additional time or effort for preparation. They need no solvents or other bases and there is no disposal problem.

Misunderstandings on the part of shippers, carriers, underwriters, and port handlers, the council said, have sometimes hampered the processing of shipments using pressure sensitive tapes

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as a method to seal and bind packages. There are over 490 different kinds of pressure sensitive tapes, the council concluded.

Container Testers (Continued from Page 7)

tracks and smash against the immovable bumper. The unusual capacity of the machine makes it possible to stack containers several wide and deep, and as high as they would be loaded in railroad cars or trucks. Thus actual shipping conditions can be simulated.

The object of all these tests is to insure that products will be protected during all phases of handling, shipping and storage. Since requirements for various products differ, the severity of the tests is varied accordingly. Besides insuring product protection, the tests check against over-designing, or the wasteful use of needless extra packaging material.

Smaller packages, weighing up to 600 lbs., are tested in the laboratory's 14 ft. revolving drum, which causes containers to slide, tumble and fall as the machine makes one revolution per minute. This "rough handling test" simulates treatment received in actual shipments.

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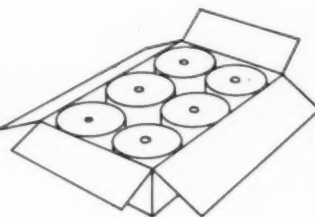
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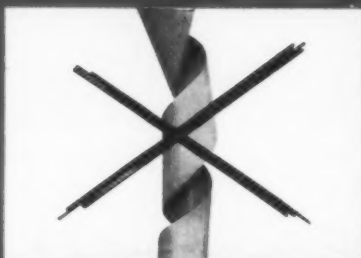


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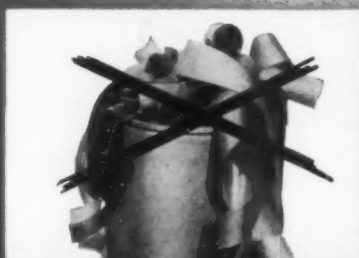
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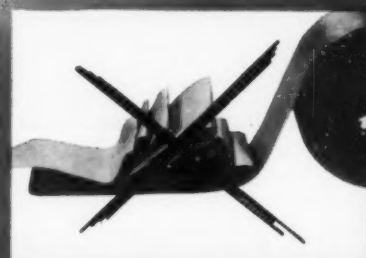
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